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AUTHOR Picton, John O.; And Others
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ABSTRACT

This report examines: (1) the extent to which rural school administrators personally use microcomputers for administrative tasks; (2) whether such use is determined by differences in sex, age, size of school district, and type of administrative assignment; and (3) the kinds of administrative computer applications that are most prevalent. Subjects surveyed were 700 school administrators (elementary, middle/junior high, and high school principals) and superintendents from rural school districts in Montana, South Dakota, and Texas. Responses were received from 80% of the administrators. The survey data showed that more than half (56%) of the rural administrators did not personally use a microcomputer for administrative tasks, and 43% of the respondents stated that they had had no training in microcomputers. Although sex was not a factor in microcomputer use, age was, with younger administrators more likely to use microcomputers for administrative tasks than their older counterparts. In addition, although there was no relationship between size of school and microcomputer use, microcomputer use can be ranked (from highest to lowest) according to type of administrator: elementary principals (highest), middle/junior high principals, high school principals, and superintendents (lowest). Finally, it was found that administrators tend to use microcomputers for traditional types of administrative tasks rather than for a complete range of public school administrative functions. Four graphs and a copy of the survey instrument are included. (7 references) (EW)

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Personal Administrative Computing in Rural Schools

research by

John O. Picton,
Bureau of Ed. Research
Montana State University
Bozeman, MT

Kay Schallenkamp, Dean
Graduate Studies
Northern State College
Aberdeen SD

Robert A. Warren
Education Dept.
Texas A&I Univ.
Kingsville, TX

PURPOSE

Although many state education agencies require that teachers receive training in microcomputer applications in education, school administrators rarely have formal training in how to personally use microcomputers for administrative tasks. This research was conducted to obtain data for the design of inservice training for rural school administrators on personal use of microcomputers for administrative tasks. Accordingly, the study was designed to:

1. determine the extent to which rural school administrators personally use microcomputers for administrative tasks.
 2. determine differences in personal use of microcomputers for school administrator: (a) sex, (b) age, (c) size of school district, and (d) type of administrative assignment.
- determine the kinds of administrative microcomputer applications.

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METHODOLOGY

The states of Montana, South Dakota and Texas were studied because they represent a broad range of characteristics of rural schools (i.e. ethnic populations, socio-economic levels, climate and geographical conditions, state funding, organization, and services to public schools). A survey to determine the amount, type and characteristics of administrators who personally use microcomputers for administration was administered on a trial run to 15 administrators in Texas. An analysis of the field trial and unique characteristics of the states in which the instrument would be administered led to a revision of the instrument. The revised survey of 58 questions was administered to 700 rural school administrators (elementary, middle/junior high, and high school principals, and superintendents) in Montana, South Dakota and Texas. Five Hundred and fifty-eight administrators (80%) responded to the survey.

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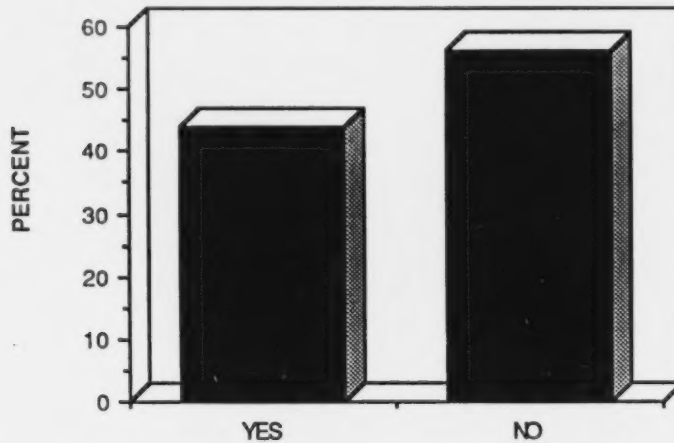
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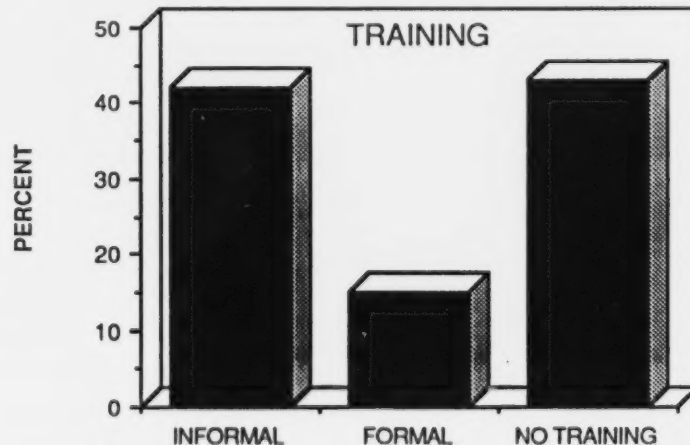
RESULTS

1. More than half (56%) of the rural administrators surveyed did not personally use a microcomputer for administrative tasks.

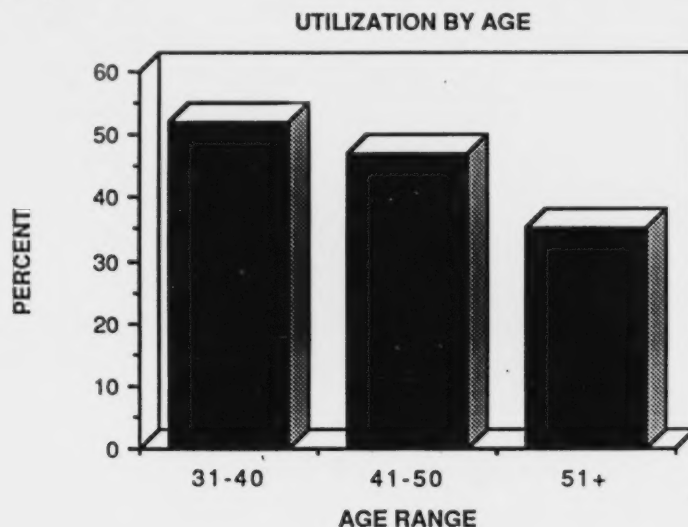
PERSONALLY USES FOR ADMINISTRATIVE TASKS



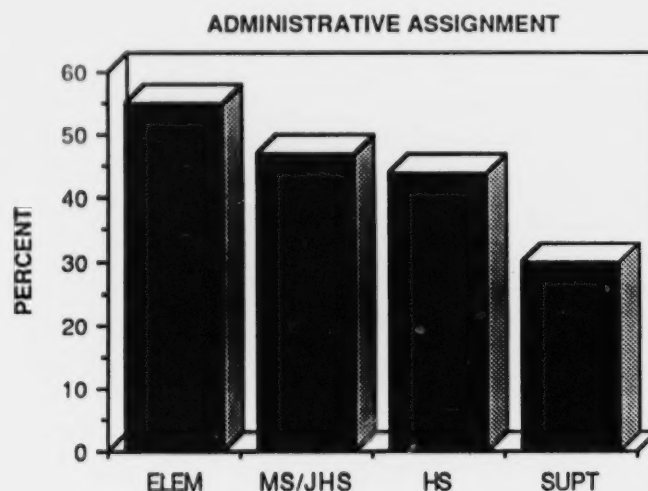
2. Forty-three percent (43%) of those responding stated that they have had no training (formal course work, workshops, or self-training) in microcomputers. Only fifteen percent (15%) indicated that they had a formal course in microcomputers.



3. Age is a factor for using microcomputers for administrative tasks. Younger rural public school administrators are more likely to use microcomputers for administrative tasks than their older counterparts.



4. The sex of a rural public school administrator is not a factor in personal microcomputer use for administrative tasks.
5. Rural administrators can be ranked (highest to lowest) according to amount of personal use of microcomputers for administrative tasks, accordingly: elementary principals (highest), middle/junior high principals, high school principals, and superintendents (lowest).



6. There is no relationship between the size of a school and administrative use of microcomputers.
7. Of the 46 types of microcomputer applications surveyed rural administrators tend to use these the most: (a) student records, (b) word processing for general administration, (c) attendance, and (d) general accounting and ledgers.
8. Of the 46 types of microcomputer applications surveyed rural administrators tend to use these the least: (a) facilities management (energy management, facilities utilization), (b) snow removal schedules, (c) media reservations, and (d) graduate follow-up.

CONCLUSIONS

Although rural school administrators have many computer services available (i.e from state agencies and/or intermediate units) a majority do not personally use microcomputers for administrative tasks. Administrators used microcomputers for traditional types of administrative tasks rather than for a more complete range of public school administrative functions. A lack of formal training and an administrator's age are important factors in using microcomputers as personal administrative tools.

To increase the productivity skills of rural administrators certification plans should be developed to include formal coursework in microcomputer applications for administrators. Development of similar survey instruments on local and regional levels can provide colleges and universities with data for developing meaningful degree/certification and inservice programs which incorporate microcomputer training for rural administrators.

Selected Bibliography

- Bannon, Susan and Marshall, Jon C., "Educational Computing in Rural Versus Urban Settings", Research in Rural Education, Vol. 3 No. 3, 1986, p131-135.
- Barbour, Andrew, "Office Romance - Why Administrators Are Hooked on Technology", Electronic Learning, April, 1987, p.18-23.
- Brown, Daniel J., "The Change to Administrative Computing in Schools", AEDS Journal, Vol. 18, Fall, 1984, p.17-30.

Mims, Ted, Poirot, Jim, "Compouter Competencies for School Administrators",
The Computing Teacher, Vol. 11, Mar. 1984, p.38-39.

Pogrow, Stanley, "Administrative Uses of Computers: What is the Ideal
System? What are the Trends?" NASSP Bulletin, Vol. 69, Dec. 1985, p.45-53.

Rolley, Martha, "Administrative Uses of Computers in Elementary Schools",
Paper presented at the Annual Meeting of the National Catholic education
Association (Anaheim, CA, March 31-April 3, 1986), ED268661.

Splittergerber, Fredric, Stirzaker, Norbert A., "Computer Technology for
Administrative Information and Instructional Management in School
Districts", Educational Technology, Vol. 24, Feb 1984, p.36-38.

Survey - Administrative Utilization of Computers

I - General Information

Place a check (X) or required information in the space.

1. Sex: ☐ M ☐ F
2. Age: ☐ 21-30 ☐ 31-40 ☐ 41-50 ☐ 51+
3. Name of School District _____
4. County _____ State _____ ZIP _____
5. Average Daily Attendance of District _____
6. Position: ☐ Superintendent ☐ Jr. High/Middle Sch. Principal
☐ H.S. Principal ☐ Elementary Principal
** The person filling out this form MUST be one of the above!
7. For what grade levels are you responsible?
(e.g. 1-6, 9-12, K-12) _____
8. Does your office use a computer for administrative purposes?
☐ Yes ☐ No
If "Yes", who operates the computer (e.g. entry of data, printing results)?
☐ Myself ☐ Secretary Other (specify) _____
9. Do you personally use a computer for administrative purposes?
☐ Yes ☐ No
If "Yes", what brand name of computer do you use for administrative purposes? _____
10. Number of years that you have used computers for administration? _____

If you OR your office does NOT use a computer for administrative tasks skip to question #57.

Circle the number of the item(s) for which you utilize a computer.

II - Students

- | | |
|--|-------------------------------|
| 11. Census (family) | 12. Enrollment projection |
| 13. Attendance (annual) | 14. Athletic eligibility list |
| 15. Attendance (daily/building) | 16. Health records |
| 17. Reporting of grades | 18. Graduate Follow-up |
| 19. Guidance Records | 20. Test Scoring and Analysis |
| 21. Instructional Management (building level) | |
| 22. School Calendar (e.g. schedule of work days, holidays) | |
| 23. Student records (e.g. grades, locker numbers, courses, etc.) | |
| 24. Transportation (e.g. bus route information from census file) | |
| 25. Other (Please specify) _____ | |

III - Personnel

- 26. Salary Simulation
- 27. Paycheck Calculation
- 28. Assignment "System" (teaching assignments)
- 29. Payroll Related Reports (e.g. labor, sick leave, etc.)
- 30. Personnel Records (e.g. certification, seniority, etc.)
- 31. Other (Please specify) _____

IV - Facilities

- 32. Petty Cash Accounting
- 33. Financial Forecasting
- 34. Accounts Receivable/Payable
- 35. Facilities/Equipment Inventory
- 36. Maintenance (e.g. schedules, records)
- 37. Energy Management (e.g. energy use accounting)
- 38. Lunch Program (e.g. lunch counts, inventory and reports)
- 39. General Accounting (e.g. budget, receipts, expenditures)
- 40. Facilities Utilization (percent of building utilization)
- 41. Other (Please specify) _____

V - Finance

- 42. General Ledger
- 43. Vendor Reports and Purchase Orders
- 44. Certificates of deposit and Investments (e.g. interest rate, value at maturity)
- 45. Other (Please specify) _____

VI - General Administration

- 46. Library Circulation
- 47. Snow Removal Schedule
- 48. Project Planning and Budgeting
- 49. Information Storage and Retrieval
- 50. Word Processing (e.g. newsletters)
- 51. Ad Hoc Reporting from Larger Data Files
- 52. Activity Scheduling (extra curricular)
- 53. Statistical Analysis (research activities)
- 54. Media Reservations (e.g. equipment, scheduling, inventory)
- 55. Mailing Lists/Labels (e.g. students, parents, staff, etc.)
- 56. Other (Please specify) _____

57. Do you yourself have computer skills? ____ No ____ Yes (please specify)
- _____
- _____

If "yes", how did you acquire these skills?

____ Self-taught ____ Formal coursework
____ Workshop(s) ____ Other (please specify) _____

58. Does anyone in your office beside yourself (administrators, staff, etc.) have computer skills? ____ No ____ Yes (if yes, please specify that person's skills and position)
- _____
- _____

____ Yes ____ No Please check if you would like a copy of the survey results.

Survey - Administrative Utilization of Computers

I - General Information

Place a check (X) or required information in the space.

1. Sex: ☐ M ☐ F
2. Age: ☐ 21-30 ☐ 31-40 ☐ 41-50 ☐ 51+
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